

AMENDMENTS IN THE CLAIMS:

1. (Currently Amended) A data processor comprising:
a receiving section for receiving video data and audio data;
a compressing section for generating encoded data, complying with the MPEG-2 system standard, by encoding the video data and the audio data received;
an auxiliary information generating section for generating auxiliary information, which includes reference information to make reference to the encoded data and attribute information that uses a video object unit (VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit; and
a writing section for writing the encoded data and the auxiliary information on a storage medium as a data file complying with the MPEG-2 system standard and an auxiliary information file, respectively,
wherein the encoded data is decodable both by either the auxiliary information file in accordance with a standard other than the MPEG-2 system standard ~~{(or)}~~ and by the MPEG-2 system standard.

2. (Original) The data processor of claim 1, wherein the reference information represents the file name and storage location of the data file stored on the storage medium.

3. (Original) The data processor of claim 1, wherein the compressing section generates the encoded data as a plurality of sets, and
wherein the auxiliary information generating section generates the reference information that makes reference to each said set of encoded data.

4. (Original) The data processor of claim 1, wherein the compressing section generates the encoded data as a plurality of sets, and
wherein the auxiliary information generating section generates stream data as a single stream by arranging the plurality of sets of encoded data as a series, and also generates auxiliary information that further describes location information specifying

the storage location of the encoded data if the data size of the encoded data is not constant every time the data is read.

5. (Original) The data processor of claim 1, wherein the compressing section generates the encoded data as either an MPEG-2 program stream or an MPEG-2 transport stream.

6. (Original) The data processor of claim 1, wherein the auxiliary information generating section describes an audio frame of encoded audio data, representing the audio data of the encoded data, as another sample unit in the attribute information.

7. (Original) The data processor of claim 3, wherein the compressing section generates first, second and third data files, the second data file including frame data that is needed to decode the encoded data of the first and third data files continuously with no time gap left.

8. (Original) The data processor of claim 1, wherein the auxiliary information generating section generates an auxiliary information file that is described in the MP4 format.

9. (Original) The data processor of claim 1, wherein the auxiliary information generating section generates an auxiliary information file that is described in the QuickTime format.

10. (Canceled)

11. (Canceled)

12. (Currently Amended) A data processor for processing stream data, the stream data comprising:

encoded data included in a data file complying with the MPEG-2 system standard; and auxiliary information included in an auxiliary information file,

wherein the encoded data is obtained by encoding video data and audio data in accordance with the MPEG-2 system standard, and is decodable both by either the auxiliary information in accordance with a standard other than the MPEG-2 system standard ~~for~~ and by the MPEG-2 system standard, and

wherein the auxiliary information includes: reference information to make reference to the encoded data; and attribute information that uses a video object unit (VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit,

the data processor comprising:

a reading section for reading the auxiliary information file from the stream data and also reading the data file in response to a control signal;

a reading control section for generating, as the control signal, a signal instructing that the data file be read in accordance with the reference information defined by the auxiliary information of the auxiliary information file;

a decoding section, which receives the encoded data from the data file read and the auxiliary information and which decodes the encoded data into the video data and the audio data in accordance with the attribute information included in the auxiliary information; and

an output section for outputting the video and audio data decoded.

13. (Currently Amended) A data writing method comprising steps of: receiving video data and audio data;

generating encoded data, complying with the MPEG-2 system standard, by encoding the video data and audio data received;

generating auxiliary information, which includes reference information to make reference to the encoded data and attribute information that uses a video object unit

(VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit; and

writing the encoded data and the auxiliary information on a storage medium as a data file complying with the MPEG-2 system standard and an auxiliary information file, respectively,

wherein the encoded data is decodable both by either the auxiliary information file in accordance with a standard other than the MPEG-2 system standard ~~{or}~~ and by the MPEG-2 system standard.

14. (Currently Amended) A computer program embodied in a computer-readable medium to be executed by a data processor, the program comprising steps of:

receiving video data and audio data;

generating encoded data, complying with the MPEG-2 system standard, by encoding the video data and audio data received;

generating auxiliary information, which includes reference information to make reference to the encoded data and attribute information that uses a video object unit (VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit; and

writing the encoded data and the auxiliary information on a storage medium as a data file complying with the MPEG-2 system standard and an auxiliary information file, respectively,

wherein the encoded data is decodable both by either the auxiliary information file in accordance with a standard other than the MPEG-2 system standard ~~{or}~~ and by the MPEG-2 system standard.

15. (Currently Amended) A data reading method for reading stream data, the stream data comprising:

encoded data included in a data file complying with the MPEG-2 system standard; and auxiliary information included in an auxiliary information file,

wherein the encoded data is obtained by encoding video data and audio data in accordance with the MPEG-2 system standard, and is decodable both by either the auxiliary information in accordance with a standard other than the MPEG-2 system standard ~~{or}~~ and by the MPEG-2 system standard, and

wherein the auxiliary information includes: reference information to make reference to the encoded data; and attribute information that uses a video object unit (VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit,

the method comprising steps of:

reading the auxiliary information file from the stream data;

generating a control signal instructing that the data file be read in accordance with the reference information defined by the auxiliary information of the auxiliary information file;

reading the data file in response to the control signal;

receiving the encoded data from the data file read and the auxiliary information and decoding the encoded data into the video data and the audio data in accordance with the attribute information included in the auxiliary information; and

outputting the video and audio data decoded.

16. (Currently Amended) A computer program embodied in a computer-readable medium to be executed by a data processor in association with stream data, the stream data comprising:

encoded data included in a data file complying with the MPEG-2 system standard; and auxiliary information included in an auxiliary information file,

wherein the encoded data is obtained by encoding video data and audio data in accordance with the MPEG-2 system standard, and is decodable both by either the auxiliary information in accordance with a standard other than the MPEG-2 system standard ~~{or}~~ and by the MPEG-2 system standard, and

wherein the auxiliary information includes: reference information to make reference to the encoded data; and attribute information that uses a video object unit

(VOBU) of the encoded data as a sample unit and that describes an attribute of the sample unit,

the program comprising steps of:

reading the auxiliary information file from the stream data;

generating a control signal instructing that the data file be read in accordance with the reference information defined by the auxiliary information of the auxiliary information file;

reading the data file in response to the control signal;

receiving the encoded data from the data file read and the auxiliary information and decoding the encoded data into the video data and the audio data in accordance with the attribute information included in the auxiliary information; and

outputting the video and audio data decoded.

17. (Currently Amended) A data processor comprising:

a receiving section for receiving video data and audio data;

a compressing section, which encodes the received video and audio data by a predetermined encoding technique, thereby generating encoded data complying with the MPEG-2 system standard in which data representing the video data and data representing the audio data are interleaved with each other; and

an auxiliary information generating section for generating auxiliary information, which includes reference information to make reference to the encoded data and attribute information that describes an attribute of a sample unit,

wherein the sample is a set of the encoded data that has been collected according to a playback duration of the video data, and

wherein the encoded data is decodable both by either the auxiliary information in accordance with a standard other than the MPEG-2 system standard ~~for~~ and by a decoding technique corresponding to the predetermined encoding technique.